

THE NEW HAMPSHIRE ENERGY CODES

On March 14, 2002, New Hampshire adopted a state-wide building code. (See <http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-XII-155-A.htm>). As part of this building code, the NH Energy Code is the International Energy Code Council (IECC) 2000. The following is a description of that Energy Code.

- **Application(s)**. There are separate applications for **New Construction** and for **Additions, Sunroom Additions, and Renovations**. Go to www.puc.nh.gov and click on energy codes to download the new applications.
- **REScheck Software**. This is a free, user friendly software package which allows you to demonstrate compliance with the Energy Code. You may download it via the PUC Energy Codes page. Go to www.puc.nh.gov and click on *energy codes* to download the software. You should end up with the NH Specific REScheck Software Package. When you get to the 'Download REScheck' page, make sure to click on New Hampshire to get the NH specific software.
- **REScheck Area-calc module**. This tool will help you to determine the areas of windows, doors, walls and floors. You can access it from REScheck by clicking on tools. Not only can you calculate and transfer building component specs, if you repeatedly use the same components such as windows, doors or heating systems, you can save them in a library for future use.
- **Architect and Engineer Certification**. In addition to the requirements for a certification letter, published on the PUC websites, professional certification shall include a statement of the method used to determine compliance with the energy code.

NEW CONSTRUCTION

- **Express NH** is the quickest application procedure. You simply agree to install insulation and mechanical equipment as specified then submit the cover page and the 2nd page entitled "*Express NH Energy Code Compliance*".
- **+ Performance Packages**. These higher efficiency packages represent improved envelope efficiency of approximately 15%.
- **Performance Packages Ceiling R-Values**. There is only one listing for ceiling R-value. This includes both flat and sloped ceilings. If you want to list different R-values for different ceilings you may still do so using the REScheck software approach. Note that you may substitute R-38 ceiling insulation for R-49 and R-30 for R-38 if you are able to maintain its full thickness over the outside wall plate.
- **Insulation of Domestic Hot Water pipes**. Any domestic hot water pipes in unconditioned space must be insulated to a minimum of R-4.

ADDITIONS, SUNROOM ADDITIONS AND RENOVATIONS

Separate Application for Additions, Sunroom Additions and Renovations.

There are three addition packages for additions with up to 40% glazing, and up to 500 square feet of floor space.

Different Calculation of Glazing Percentages for Additions and Sunroom Additions.

You must calculate the glazing percentage for an addition, but it is calculated as a ratio of the **window area** to the **wall *plus* the ceiling area**.

Sunroom Additions. This category is designed for additions having greater than 40% glazing to wall and ceiling area. In addition to the performance packages listed for Sunroom Additions, they must meet the following specifications:

- The floor area may not exceed 500 square feet.
- Thermal isolation must be maintained from the rest of the house. (The sunroom addition must be separated from the house by insulated walls, doors and/or windows.)
- If the area is to be heated, a separate heating system or zone with the thermostat must control heat in the sunroom. (These allow the occupant to isolate the room from the rest of the house and chose to heat or not heat that room.)
- May not be used as a kitchen or sleeping room.

Renovations or Repairs to a Building “...(s)all conform to the provisions of this code as they relate to new construction without requiring the unaltered portions of the existing system to comply with all of the requirements of this code.”

If you renovate or repair a portion of the building, that portion must be brought up to code standards. For renovations, the IECC2000 requirements are:

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|----------------------------|-------|
| • <i>Maximum</i> window | U-.35 |
| • Ceiling insulation | R- 49 |
| • Wall Insulation | R- 21 |
| • Floor Insulation | R- 21 |
| • Basement wall insulation | R- 11 |
| • Slab Insulation 4’ down | R- 13 |

Exceptions to this include:

- New storm windows installed over existing windows or doors.
- Glass only replacement in an existing sash or frame.
- Existing ceiling, wall or floor cavities exposed during construction provided these cavities are already filled with insulation.
- Construction where the existing roof, wall or floor cavity is not exposed.

Questions on the code and technical support for the REScheck Software can be found at energycodes@puc.nh.gov or by calling 603-271-6306

ONLINE COMPLIANCE

You may submit your application on-line. To do so, you need the following:

- **REScheck Software** completed for the project and saved as an '.rck' file. To download this software go to www.puc.nh.gov and click on energy codes.
- **Area Calc Module** '.acx' file. To use this module access it through REScheck software tools and save as a separate '.acx file'.
- **An electronic copy of your plan.** This may be a scanned plan saved with a standard format such as .jpg, .tif, or .gif. Other formats will be accepted if reader is available. Please call 271-6306 for information.

If you can supply the information listed above, then point your browser to:

<http://www.puc.nh.gov/energycode/startapp.aspx>

Under option 1.

- Click on request password. An e-mail form will pop up.
- Enter your name and return the form.
- Your password will be e-mailed to you.
- Once you have a password, go back to the link above &
- Click on **log in**, enter e-mail address and password,
- Complete the online application, which contains the same information as the paper application.
- On page 5 of the online compliance module, attach REScheck '.rck' and areacalc '.acx' files and your scanned plan.
- Click **Submit Online**.
- Your plans will be reviewed, approved and returned by mail.

Option 2. Enter data online, submit compliance and plans by mail.

If you cannot attach all the needed information for Option 1, you may enter data for a structure online and then mail any follow up materials including plans, or compliance data to the PUC Energy Codes office. Go to:

<http://www.puc.nh.gov/energycode/startapp.aspx>

then click on 'continue to page one of this application'

Mail remaining materials to the NH Public Utilities Commission.